

# International Standard



# 7949

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

## Woodworking machines — Veneer pack edge shears — Nomenclature and acceptance conditions

*Machines à bois — Massicots pour paquets de placage — Nomenclature et conditions de réception*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7949 was prepared by Technical Committee ISO/TC 39, *Machine tools*.

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# Woodworking machines — Veneer pack edge shears — Nomenclature and acceptance conditions

## 1 Scope and field of application

This International Standard specifies the nomenclature appropriate to each part of the machine and, with reference to ISO/R 230, both geometrical and practical tests for veneer pack edge shears, and gives the corresponding permissible deviations which apply to machines for general purpose use and normal accuracy.

NOTE — In addition to terms used in two of the three official ISO languages (English and French), this International Standard gives in the annex the equivalent terms in German, Spanish, Italian and Swedish; these have been included at the request of Technical Committee ISO/TC 39 and are published under the responsibility of the member bodies for Germany, F.R. (DIN), Spain (IRANOR), Italy (UNI) and Sweden (SIS). However, only the terms and definitions given in the official languages can be considered as ISO terms and definitions.

This International Standard deals only with the verification of accuracy of the machine. It does not apply to the testing of the running of the machine (vibrations, abnormal noises, stick-slip motion of the components, etc.), nor to its characteristics (speeds, feeds, etc.) which should generally be checked before testing accuracy.

## 2 Reference

ISO/R 230, *Test code for machine tools*.

## 3 Preliminary remarks

**3.1** In this International Standard all dimensions and permissible deviations are expressed in millimetres.

**3.2** To apply this International Standard, reference should be made to ISO/R 230, especially for installation of the machine before testing, the warming up of the main spindle and other moving parts, and description of measuring methods. The measuring instruments shall not permit errors over 1/3 of the checked tolerances.

**3.3** The sequence in which the geometrical tests are given is related to the sub-assemblies of the machine and this in no way defines the practical order of testing. In order to make mounting of instruments or gauging easier, tests may be applied in any order.

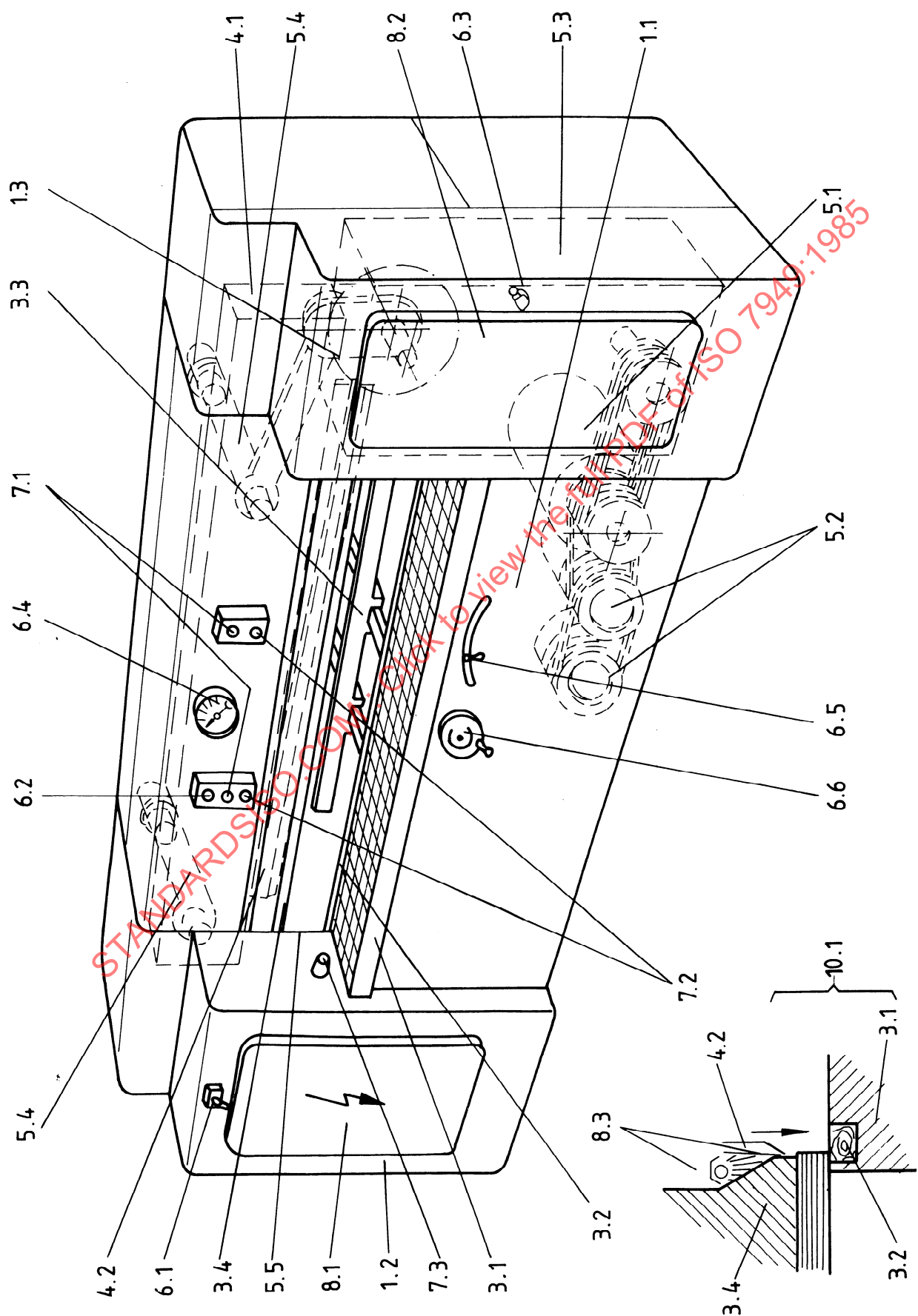
**3.4** When inspecting a machine, it is not always possible or necessary to carry out all the tests given in this International Standard.

**3.5** It is up to the user to choose, in agreement with the manufacturer, those tests relating to the properties which are of interest to him, but these tests are to be clearly stated when ordering a machine.

**3.6** A movement is longitudinal when it takes place in the working direction of the piece.

**3.7** When establishing the tolerance for a measuring range different from that given in this International Standard (see 2.311 in ISO/R 230), it should be taken into consideration that the minimum value of the tolerance is 0,01 mm.

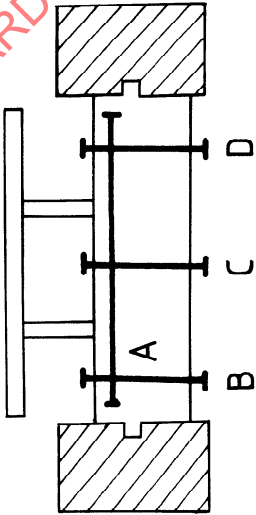
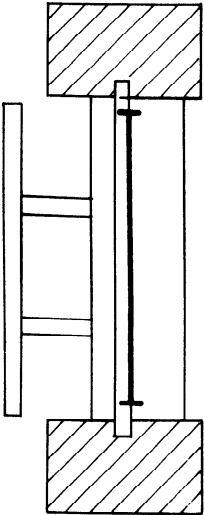
4 Nomenclature

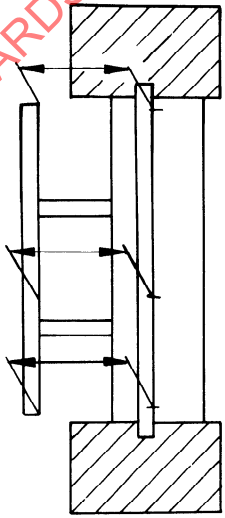
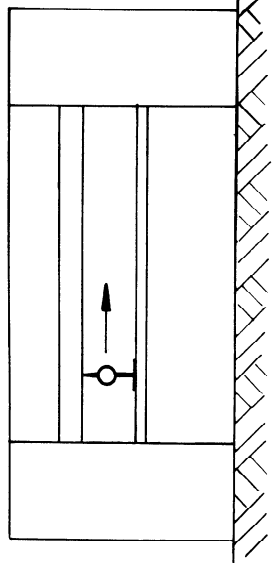


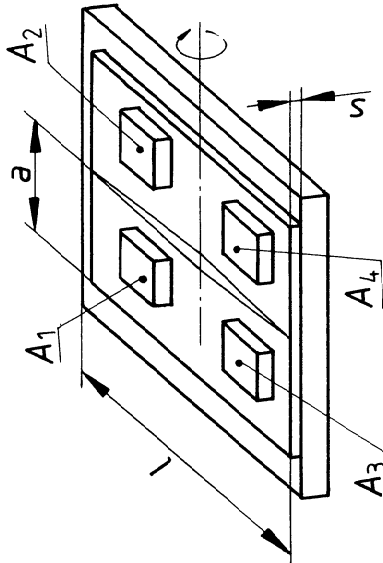
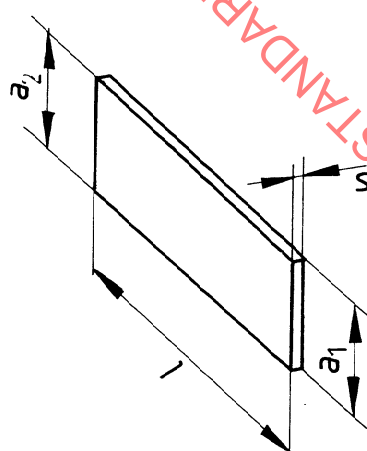
| Reference | English                                   | French                                                 |
|-----------|-------------------------------------------|--------------------------------------------------------|
|           | Veneer pack edge shears                   | Massicot pour paquets de placage                       |
| 1         | <b>Framework</b>                          | <b>Ossature</b>                                        |
| 1.1       | Central body                              | Bâti central                                           |
| 1.2       | Left hand column                          | Montant gauche                                         |
| 1.3       | Right hand column                         | Montant droit                                          |
| 2         | <b>Feed of workpiece and/or tools</b>     | <b>Déplacement des pièces et/ou outils</b>             |
| 3         | <b>Workpiece support, clamp and guide</b> | <b>Support, maintien et guidage des pièces</b>         |
| 3.1       | Table                                     | Table                                                  |
| 3.2       | Cutting block                             | Contre-lame d'usure                                    |
| 3.3       | Cutting fence                             | Guide de coupe                                         |
| 3.4       | Pressure beam                             | Barre de compression                                   |
| 4         | <b>Toolholders and tools</b>              | <b>Porte-outils et outils</b>                          |
| 4.1       | Knife holder                              | Porte-couteaux                                         |
| 4.2       | Knife                                     | Couteau                                                |
| 5         | <b>Workheads and tool drives</b>          | <b>Unité de travail et son entraînement</b>            |
| 5.1       | Motor                                     | Moteur                                                 |
| 5.2       | Hydraulic power pack                      | Réducteur hydraulique                                  |
| 5.3       | Gear box                                  | Boîte de vitesses                                      |
| 5.4       | Connecting rods                           | Bielle                                                 |
| 5.5       | Knife holder slide                        | Glissière du porte-couteaux                            |
| 6         | <b>Controls</b>                           | <b>Commandes</b>                                       |
| 6.1       | Main switch                               | Commutateur général                                    |
| 6.2       | Motion beam switch                        | Commutateur de descente du sommier                     |
| 6.3       | Pressure regulator                        | Commande de réglage de la pression                     |
| 6.4       | Pressure gauge                            | Manomètre                                              |
| 6.5       | Fence adjustment, coarse                  | Commande d'approche du guide                           |
| 6.6       | Fence adjustment, fine                    | Commande de réglage précis du guide                    |
| 7         | <b>Safety devices (examples)</b>          | <b>Dispositifs de sécurité (exemples)</b>              |
| 7.1       | Two-hand control : pressure pad           | Double commande de descente de la barre de compression |
| 7.2       | Two-hand control : knife                  | Double commande de descente des couteaux               |
| 7.3       | Photo-electric screen cell                | Cellule photoélectrique de protection                  |
| 8         | <b>Miscellaneous</b>                      | <b>Divers</b>                                          |
| 8.1       | Electric enclosure                        | Armoire électrique                                     |
| 8.2       | Main drive enclosure                      | Armoire des organes mécaniques                         |
| 8.3       | Cut marker beam                           | Indicateur lumineux de coupe                           |
| 9         | <b>Free</b>                               | <b>Libre</b>                                           |
| 10        | <b>Examples of work</b>                   | <b>Exemples de travail</b>                             |
| 10.1      | Edge shearing of veneer packs             | Massicotage d'un paquet de placage                     |

5 Acceptance conditions and permissible deviations

5.1 Geometrical tests

| No. | Diagram                                                                               | Object                                                                                         | Permissible deviation                                                                       | Measuring instruments          | Observations and references in test code ISO/R 230 |
|-----|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|
| G1  |    | Checking of flatness of table :<br>a) longitudinal straightness;<br>b) transverse straightness | a) Position A<br>0,10<br>for a measuring length of 1000<br><br>b) Positions B, C, D<br>0,20 | Straightedge and feeler gauges | Clause 5.322                                       |
| G2  |  | Checking of straightness of knife holder                                                       | 0,10<br>for a measuring length of 1000                                                      | Straightedge and feeler gauges | Clauses 5.222 and 5.212                            |

| No. | Diagram                                                                               | Object                                                                                | Permissible deviation | Measuring instruments       | Observations and references in test code ISO/R 230     |
|-----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------|-----------------------------|--------------------------------------------------------|
| G3  |    | Checking of parallelism of the knife holder to the cutting fence, in maximum position | 0,10<br>per 1 000     | Steel gauge and slide gauge | Clause 5.412.2<br>Checks to be made at several points. |
| G4  |  | Checking of parallelism of the pressure beam in upper position to the table surface   | 0,50                  | Dial gauge                  | Clause 5.412.2                                         |

| No. | Diagram                                                                              | Nature of test and execution conditions                                                                        | Permissible deviation                               | Measuring instruments                                                     | Observations and references in test code ISO/R 230                                                                                                                                       |
|-----|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P1  |   | Checking of straightness of two veneer pieces cut from a veneer pack; smooth veneer with the minimum of stress | 0,10<br>for a measuring length of 1000              | A flat surface :<br>four weights<br>$A_1, A_2, A_3, A_4$<br>Feeler gauges | Clauses 5.212 and 5.222<br>Test pieces with no local defects<br>$a \geq 350$<br>$l$ = working length<br>$s = 0,60$ to $1,00$<br>Repeat the test after turning one test piece $180^\circ$ |
| P2  |  | Checking of parallelism of individual veneer cut                                                               | $a_1/a_2$<br>0,10<br>for a measuring length of 1000 | Slide gauge                                                               | Test piece<br>$a \geq 350$<br>$l$ = working length<br>$s \geq 1,50$                                                                                                                      |

## Annex

### Equivalent terms

| Reference | German                                               | Spanish                                                     | Italian                                         | Swedish                                              |
|-----------|------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|
|           | <b>Furnierpaketschneidemaschine</b>                  | <b>Cizalla para paquetes de chapa</b>                       | <b>Taglierina per pacchi di impiallaccature</b> | <b>Fanérklippmaskin</b>                              |
| 1         | <b>Ständer</b>                                       | <b>Armazón</b>                                              | <b>Intelaiatura</b>                             | <b>Stativkonstruktion</b>                            |
| 1.1       | Hauptständer                                         | Cuerpo central                                              | Basamento                                       | Huvudstativ                                          |
| 1.2       | Ständer, links                                       | Columna izquierda                                           | Montante di sinistra                            | Vänster pelare                                       |
| 1.3       | Ständer, rechts                                      | Columna derecha                                             | Montante di destra                              | Höger pelare                                         |
| 2         | <b>Vorschub von Werkstück und/oder Werkzeug</b>      | <b>Desplazamiento de las piezas y/o de las herramientas</b> | <b>Spostamento dei pezzi e/o degli utensili</b> | <b>Matning av arbetsstycke och/eller verktyg</b>     |
| 3         | <b>Werkstückauflage. -Halierung und -Führung</b>     | <b>Soporte, sujeción y guía de las piezas</b>               | <b>Supporto, fissaggio e guida dei pezzi</b>    | <b>Upplag, hållare och styrning för arbetsstycke</b> |
| 3.1       | Tisch                                                | Mesa                                                        | Tavola                                          | Bord                                                 |
| 3.2       | Schneidleiste                                        | Contra-cuchilla de trabajo                                  | Controlama                                      | Skärlist                                             |
| 3.3       | Anschlag                                             | Guía de corte                                               | Guida di taglio                                 | Anslag                                               |
| 3.4       | Preßbalken                                           | Barra de compresión o pisón                                 | Barra di pressione                              | Pressbalk                                            |
| 4         | <b>Werkzeugträger und Werkzeuge</b>                  | <b>Porta-herramienta y herramienta</b>                      | <b>Portautensili ed utensili</b>                | <b>Verkttyghållare och verktyg</b>                   |
| 4.1       | Messerträger                                         | Porta-cuchilla                                              | Portacoltello                                   | Knivbalk                                             |
| 4.2       | Messer                                               | Cuchilla                                                    | Coltello                                        | Kniv                                                 |
| 5         | <b>Einbauteile und Teile für den Werkzeugantrieb</b> | <b>Unidad de trabajo y su transmisión</b>                   | <b>Unità operatrice e suo azionamento</b>       | <b>Bearbetningsenheter och drivsystem</b>            |
| 5.1       | Motor für Messerantrieb                              | Motor                                                       | Motore                                          | Motor                                                |
| 5.2       | Hydraulikaggregat                                    | Reductor hidráulico                                         | Gruppo idraulico                                | Hydraulikaggregat                                    |
| 5.3       | Getriebe                                             | Caja de velocidades                                         | Scatola ingranaggi                              | Växellåda                                            |
| 5.4       | Zugstange                                            | Biela                                                       | Biella                                          | Vevarmar                                             |
| 5.5       | Messerbalkenführung                                  | Guía del porta-cuchilla                                     | Slitta portacoltello                            | Knivbalkstyrning                                     |
| 6         | <b>Bedienungs- und Überwachungsorgane</b>            | <b>Mandos</b>                                               | <b>Comandi</b>                                  | <b>Manöverorgan</b>                                  |
| 6.1       | Hauptschalter für Motor                              | Commutador general                                          | Interruttore principale                         | Huvudströmbrytare                                    |
| 6.2       | Schalter für Preßbalkenaufwärtsbewegung              | Commutador de descenso                                      | Interruttore di comando della barra             | Strömbrytare för retrorörelse hos pressbalken        |
| 6.3       | Preßdruckeinstellung                                 | Mando regulador de la presión                               | Regolatore pressione                            | Tryckinställning                                     |
| 6.4       | Manometer                                            | Manómetro                                                   | Manometro                                       | Tryckmätare                                          |
| 6.5       | Grobeinstellung des Anschlages                       | Mando de aproximación de la guía                            | Comando regolazione approssimativo della guida  | Grovinställning av anslaget                          |
| 6.6       | Feineinstellung des Anschlages                       | Mando de precisión para el reglaje de la guía               | Comando regolazione di precisione della guida   | Fininställning av anslaget                           |
| 7         | <b>Sicherheitseinrichtungen (Beispiele)</b>          | <b>Dispositivos de seguridad (ejemplos)</b>                 | <b>Dispositivi di sicurezza (esempi)</b>        | <b>Säkerhetsanordningar (exempel)</b>                |
| 7.1       | Zweihandschaltung für Balkenabwärtsbewegung          | Mando doble de descenso de la barra de compresión           | Doppio comando di discesa barra di pressione    | Tvåhandsmanöverdon för pressbalksrörelse             |
| 7.2       | Zweihandschaltung für Schnittausslösung              | Mando doble para descenso de la cuchilla                    | Doppio comando di discesa del coltello          | Tvåhandsmanöverdon för knivbalksrörelse              |
| 7.3       | Lichtstrahlsicherung                                 | Célula fotoeléctrica de protección                          | Cellula fotoelettrica di protezione             | Ljusridå                                             |
| 8         | <b>Verschiedenes</b>                                 | <b>Varios</b>                                               | <b>Varie</b>                                    | <b>Diverse</b>                                       |
| 8.1       | Wartungsdeckel für Elektrik                          | Armario eléctrico                                           | Armadio gruppo elettrico                        | Elskåp                                               |
| 8.2       | Wartungsdeckel für Antrieb                           | Armario                                                     | Armadio organi principali                       | Transmissionskydd                                    |
| 8.3       | Schnittandeuter mit Lichtstrahl                      | Luz indicadora de corte                                     | Luce indicatrice di taglio                      | Snittmarkeringsljus                                  |
| 9         | <b>Frei</b>                                          | <b>Libre</b>                                                | <b>Libero</b>                                   | <b>Vakant</b>                                        |
| 10        | <b>Arbeitsbeispiele</b>                              | <b>Ejemplos de trabajo</b>                                  | <b>Esempi di lavorazione</b>                    | <b>Bearbetningsexempel</b>                           |
| 10.1      | Beschneiden eines Furnierpaketes                     | Corte de un paquete de chapa                                | Taglio di un pacco di impiallaccature           | Kantskäring av fanéropaket                           |